CLAIMS:
WHAT IS CLAIMED IS:

1.(Currently Amended) A method for establishing~~, between a first and a second node,~~ a ~~data~~ flow ~~within a service instance~~ comprising:

~~sending from a mobile station to~~ receiving at a wireless ~~a first~~ network node a first request message~~, said first request message including a service instance identifier, a flow identifier that uniquely identifies a new flow created by the mobile station, and~~ comprising at least one quality of service parameter for the ~~new~~ flow;

~~determining at the first node whether a new flow that satisfies the at least one quality parameter can be supported between the first node and the mobile station;~~

granting a plurality of quality of service parameters;

sending from the ~~first~~ wireless network node ~~to a second network node~~ a second request message, the second request message ~~including a service instance identifier and at least~~ comprising one or more granted quality parameters~~; and~~

~~authorizing at the second node a service instance, identified by the service instance identifier of the second message, that satisfies the at least one quality parameter of the second message~~.

2.(Currently Amended) The method of claim 1 wherein the ~~first~~ wireless network node is a radio node ~~and the second node is a packet data switching node~~.

3.(Currently Amended) The method of claim 1, ~~wherein determining at the first node comprises~~further comprising:

~~determining that a pre-existing service instance, identified by the service instance identifier of the first request message, can support the new flow and its associated at least one quality parameter between the first node and the mobile station; and~~

sending from the ~~first~~ wireless network node to ~~the~~ a mobile station a reply message, said reply message including ~~the service instance identifier of the first request message, the flow identifier, and the at least one~~ the granted plurality of quality of service parameters and airlink parameters for the ~~new~~ flow~~;~~

~~wherein the service instance identifier of the first and second request messages is the~~

~~same~~.

4.(Currently Amended) The method of claim ~~1~~ 3, wherein ~~determining at the first node comprises:~~

~~determining that a pre-existing service instance, identified by the service instance identifier of the first request message, cannot support the new flow and it's associated at least one quality parameter between the first node and the mobile station;~~

~~determining that the new flow is to be within a new service instance that supports the at least one quality parameter; and~~

~~sending from the first node to the mobile station a reply message,~~ said reply message ~~including~~ further includes a ~~new service instance~~ flow identifier ~~that uniquely identifies the new service instance to the mobile station, the flow identifier, and the at least one quality parameter for the new flow;~~

~~wherein the service instance identifier of the second request message is the new service instance identifier~~.

5.(Currently Amended) The method of claim ~~1~~ 2 further comprising receiving ~~wherein the second node receives~~ from a node other than the ~~first~~ wireless network node and ~~the~~ a mobile station that originates the first request message, ~~prior to the sending of the first request message,~~ a subscriber profile that includes a ~~plurality~~ series of quality parameters associated with the mobile station.

6.(Currently Amended) The method of claim ~~1~~ 2, further comprising:

sending from ~~the~~ a mobile station that originates the first request message to ~~the second network~~ a further node a filter message, said filter message including ~~the flow identifier, a flow direction for the new flow, and~~ at least one packet filter.

7.(Currently Amended) The method of claim 6, wherein the at least one packet filter comprises a plurality of packet ~~filters~~ filter content options, and the at least one packet filter is identified by a flow identifier ~~that uniquely identify the new flow over all other flows associated with the mobile station~~.

8.(Currently Amended) The method of claim ~~6~~ 2 further comprising:

~~following sending the filter message,~~ determining at the ~~first~~ wireless network node that the ~~new~~ flow cannot be further supported to meet the ~~at least one~~ plurality of quality of service parameters ~~of the second message~~ that were granted;

sending ~~from the first node to the second node~~ a modified second request message~~, the modified second message including the service instance identifier of the second request message and~~ that includes at least one updated quality of service parameter ~~that differs from the at least one quality parameters of the second message~~; and

receiving authorizingation ~~at the second node the service instance, identified by the service instance identifier of the second request message,~~to satisfy the at least one updated quality of service parameter.

9.(Currently Amended) The method of claim ~~6~~ 8, wherein the modified second request message includes an identifier for ~~further comprising, at one of the first or second nodes, mapping the service instance identifier of the second request message to at least one of~~ the flow ~~identifier and the at least one packet filter~~.

10.(Currently Amended) The method of claim 1 further comprising:

determining a policy to apply to ~~the~~ a packet transported on the flow, and mapping ~~the~~ an ~~service instance~~ identifier associated with the flow to the policy.

11.(Currently Amended) The method of claim 10, wherein determining a policy is at ~~the second~~ a further node, ~~and~~ the method further comprising enforcing the policy ~~is enforced~~ at the ~~second~~ further node on the packet sent in at least one of an uplink and a downlink direction.

12.(Currently Amended) The method of claim 10 wherein determining a policy is at the ~~first~~ wireless network node, ~~and~~ the method further comprising enforcing the policy ~~if enforced~~ at the ~~first~~ wireless network node for the packet sent at least in an uplink direction from the first to the ~~second~~ further node.

13.(Currently Amended) The method of claim 10 wherein determining a policy is at the ~~second~~ further node, ~~and~~ the method further comprising enforcing the policy ~~is enforced~~ at the ~~first~~ wireless network node at least for the packet sent in an uplink direction from the ~~first~~ wireless network node to the ~~second~~ further node.

14.(Canceled)

15.(Currently Amended) A signaling protocol to enable an assured quality on ~~at least one of several~~ a flows ~~of a service instance between a radio node and a packet switching data node,~~ comprising:

~~establishing a main service instance between a mobile station and a radio node;~~

~~the mobile station signaling the~~ a radio node ~~station with a service instance identifier, a new flow identifier, and~~ receiving from a mobile station a request that includes at least one quality of service parameter for the ~~new~~ flow ~~identified by the flow identifier~~;

~~subsequent to the radio node determining a candidate service instance that can carry the flow so as to satisfy the at least one quality parameter, the candidate service instance being one of a pre-existing and a new service instance,~~ the radio node ~~signaling~~ sending to the mobile station ~~and a packet data switching node with the candidate service instance identifier;~~ a grant of a set of quality of service parameters for the flow;

the radio node further sending a registration request to a packet data switching node that includes the granted set of quality parameters for the flow; and

the radio node receiving from the packet data switching node ~~signaling the radio node with~~ a registration reply that authorizes the flow ~~an authorization that includes the candidate service instance identifier;~~

~~the mobile station signaling at least one of the radio node and the packet data switching node via the radio node with packet filters that uniquely identify the new flow; and~~

~~sending a data packet between the radio and packet data switching nodes on the new flow based on the packet filters~~.

16.(Currently Amended) The signaling protocol of claim ~~15~~28 wherein the mobile station

~~signaling~~ sending a filter message to ~~at least one of the radio node and~~ the packet data switching node ~~via the radio node comprises signaling with packet filters, flow direction, and the flow identifier~~that comprises at least one packet filter for the flow.

17.(Currently Amended) The signaling protocol of claim ~~15~~28 further comprising ~~signaling from an AAA node to~~ receiving at the packet switching data node from an AAA node a series of quality of service parameters associated with the mobile station.

18.(Currently Amended) The signaling protocol of claim 15, wherein ~~the radio node signaling the mobile station and a packet data switching node with the candidate service instance identifier further comprises the radio node signaling the mobile station~~the grant comprises, in a single ~~signaling~~ message, ~~the candidate service instance~~ an identifier ~~and parameters to establish a new traffic airlink~~ for the flow.

19.(Currently Amended) The signaling protocol of claim 15 wherein the ~~mobile station signaling the radio station with~~ request comprises, in a single message, ~~a service instance,~~ an identifier for the ~~a new~~ flow ~~identifier, and at least one quality parameter for the new flow identified by the flow identifier comprises signaling in a single message~~.

20-22. (Canceled)

23.(Currently Amended) A ~~base station~~wireless network node comprising:

a receiver for receiving~~, from a mobile station coupled to the base station via an airlink,~~ a QoS parameter request message that includes ~~at least an existing service instance identifier and a set of~~ at least one quality of service parameters ~~for a flow~~;

a controller coupled to the receiver for determining and granting ~~whether a subject service instance, on which a new flow satisfying the set of~~ at least one quality of service parameters ~~between at least the base station and the mobile station, is a pre-existing service instance or a new service instance~~; and

a transmitter coupled to the controller for sending, in response to the controller determining and granting, a ~~service connect~~ reply message to the mobile station ~~and a~~

~~registration request message to a packet data switching node, each of said messages comprising a service instance identifier for the subject service instance~~.

24.(Currently Amended) The ~~base station~~wireless network node of claim ~~23~~30, wherein the registration request message further comprises the ~~set of~~at least one quality of service parameter~~s~~.

25-26.(Canceled)

27.(New) The method of claim 2 wherein the further node is a packet data switching node.

28.(New) The signaling protocol of claim 15, further comprising:

the mobile station signaling the packet data switching node via the radio node with packet filters that identify the flow.

29.(New) The wireless network node of claim 23, wherein the transmitter is further for sending a registration request message to a packet data switching node.

30.(New) The wireless network node of claim 29, wherein the registration request message comprises an identifier for the flow.

31.(New) A wireless network node comprising:

means for receiving a QoS parameter request message that includes at least one quality of service parameter for a flow;

coupled to the receiver, means for determining and granting at least one quality of service parameters; and

coupled to the controller, means for sending, in response to the controller determining and granting, a reply message to the mobile station.

32.(New) The wireless network node of claim 31, wherein the means for receiving comprises a receiver coupled to at least one receive antenna, the means for determining

comprises an electronic controller, and the means for sending comprises a transmitter coupled to at least one transmit antenna that may be said at least one receive antenna.